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BOOK REVIEWS

Aseismic Design Analysis of Buildings, by Kiyoshi Muto; Maruzen Company, Ltd., Tokyo, 1974 xiv + 361 pp. $48.00.

The author of this book, Dr. Kiyoshi Muto, was Professor of Structural Engineering at Tokyo University until his retirement a few years ago. The book under review is the first in a series of volumes which will embody the research done by Dr. Muto during his long career. The contents of this first volume will be of particular interest to practicing structural engineers. Chapter 1 gives an introduction to the subject covering design, building codes, recording of earthquake motions, calculating response of structures and general characteristics of different types of structures. Chapter 2 covers the Shear Distribution Coefficient method of analyzing frame structures; and examples are given of the application of this method. Chapter 3 covers Bending Moments in Uniform Frames; and examples are given of calculating bending moments produced in framed structures by lateral forces. Chapter 4 treats Deflection and Rigidity of Frames; special cases are analyzed to establish the theoretical basis of the author's *D*-value approximate method of Shear Distribution Coefficient. Chapter 5 deals with a Practical Method of Frame Analysis; examples are given of calculating shears and bending moments in frames. Chapter 6 deals with Frames with Members of Non-Uniform Sections; a method of general frame analysis is given together with numerous graphs and experimental results. Chapter 7 covers Walled Frames; there is presented a modification of the author's method of analysis to cover this type of structure. Chapter 8 deals with Deformations of Shear Walls; methods for calculating stresses and deflections are given. Chapter 9 deals with Shear Walls with Openings; experimental results are given and comparisons are made between theory and experiment. Chapter 10 deals with Shear Walls and Boundary Effects; a number of different cases are analyzed and extensive tables of relevant quantities are given together with experimental results. Chapter 11 deals with Influence of Slab Deformation; single and multistory structures are considered and methods of analysis are presented. Chapter 12 concerns itself with earthquake-resistant design criteria; design criteria and principles of aseismic design are presented. There are six appendices in which special topics are further amplified.

Professor Muto's very active career began in the 1920's and this book presents an interesting overview of his work, mostly from the earlier part of his career before the advent of digital computers. An additional four volumes are promised and they, no doubt, will include later research results. The five volumes will be an impressive memorial to an eminent career in earthquake engineering.

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Peace of Mind in Earthquake Country: How to Save Your Home and Life
by Peter Yanev (with a foreword by Charles F. Richter), Chronicle Books, 870 Market St., San Francisco, 1974. 304 pages, $4.95 (paperbound).

In spite of its title, this well-written book may be very upsetting to property owners in any area prone to earthquakes. It also contains much useful information, both for the general public and for seismologists, at a reasonable price. Mr. Yanev's purpose is to inform the general public on how to recognize and avoid, or minimize, the geological and structural hazards which account for so much needless damage and loss of life as a result of earthquake faulting and shaking. He succeeds in doing this quite well. The geographic area of interest is the Western United States, including Alaska (and not just the San Andreas fault, thank goodness), but the information is applicable anywhere.

There are four main parts to the book: (1) a section on environmental hazards such as faults, local geological problems, and neighboring man-made structures such as dams, power lines, oil and water storage tanks, and semi-attached adjacent buildings; (2) a long section on architectural and structural problems, including a discussion of the principles and practice of earthquake-resistant design and detailed information on how to strengthen existing buildings; (3) an up-to-date and complete appendix describing the faults and past earthquakes in a number of the western states; (4) a detailed and useful appendix giving sources of information concerning geological hazards for different geographic areas. Also included is a short but modern "primer on earthquakes" and chapters on earthquake insurance and common sense behavior before, during, and after earthquakes.

On the whole the book is very authoritative, but as Prof. Richter warns in his foreword, there is still